

15 N.E.
RESPONSE AFTER FINAL REJECTION
EXPEDITED PROCEDURE
EXAMINING GROUP 1108

BOX AF
PATENT

Attorney Docket No. 1222.0034

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:)

David A. Russo et al.)

Serial No.: 08/544,212)

(Original Patent 5,401,305 issued)

March 28, 1995, Original Serial)

No. 104,125 filed December 13, 1993)

Filed: October 17, 1995)

For: COATING COMPOSITION)

FOR GLASS)

Owner of Record: Elf Atochem North)

America, Inc.)

Group Art Unit: 1108 ,

Examiner: D. Brunsman

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

COMMUNICATION PURSUANT TO 37 C.F.R. § 1.111

The Examiner finally rejected the application on March 3, 1997. Applicants filed a petition for a three-month extension of time and a Notice of Appeal on August 29, 1997. Accordingly, applicants submit this response prior to filing the brief on appeal.

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The Rejection Under 35 U.S.C. § 251 and 37 C.F.R. § 1.175 and Traverse

The Reissue Declaration and Declaration of Stanley A. Marcus

The Examiner rejects claims 28-55, under 35 U.S.C. § 251 and 37 C.F.R. § 1.175 as based on a defective reissue declaration. Applicants traverse the rejection and request further consideration and reexamination.

The Examiner takes the position that the reissue declaration fails to particularly specify the errors and/or how the errors relied upon arose or occurred in filing the original application as required under 37 C.F.R. § 1.175(a)(5). The Examiner specifically notes in this regard that the reissue declaration states that the error comprised a misunderstanding between counsel and inventors, "but does not specify how the error occurred, especially in view of the original filing which contained only claims to the composition and the sworn statement that 'the specification, including the claims, [was] reviewed and understood' by the undersigned applicants." March 3, 1997 Office Action, p. 2, first paragraph. (Bracketed material in original)

The December 1, 1997 amendments to 37 C.F.R. part 1, et al. (Federal Register, Vol. 62, No. 197, Friday, October 10, 1997, pp. 53132-206), eliminated from Rule 175 not only the requirement for a factual showing relating to matters in which a lack of deceptive intent must be established, but also a factual showing of how the errors to be corrected by reissue arose or occurred. Federal Register Vol. 62, No. 197 at 53165, and 53196. Additionally, the New Rules eliminate the past practice under 37 C.F.R. § 1.175(a) (3) and (a) (5) of specifically identifying all errors requiring correction at the

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time of filing the initial Oath or Declaration. *Id.* Accordingly, applicants are no longer required by new Rule 175(a) (5) to specify how the error occurred.

Applicants, however, submit their substitute declaration and the substitute declaration of their counsel Stanley A. Marcus, Esq., which further elaborate on the errors that gave rise to filing this reissue application. Briefly, these declarations show the following.¹

The declaration of the applicants show that they erroneously understood at the time of filing the parent application that the claims set out the invention that entitled them to patent protection, even though they made a more inclusive invention that encompassed not only additional compositions, but also a process, product and article of manufacture as set out in the written description of the parent application and also encompassed by the specification (i.e., the written description and claims) of the great

¹ This discussion will refer to the various applications which form the basis of the present reissue application as the "great grandparent application," Serial No. 07/814,366, filed December 26, 1991 and the "grandparent application" filed the following day, Serial No. 07/814,352 filed December 27, 1991. In order to obtain the benefit of these applications in filing abroad, applicants filed a PCT application within one year, claiming priority of the great grandparent and grandparent applications, and added additional disclosure. This is referred to as the "PCT application" Application No. PCT/US92/10873 filed 21 December 1992, designating the United States for filing the application as a continuation in part. The PCT application formed the basis for the "parent application" Serial No. 08/104,125 filed December 13, 1993. The present reissue application is based on all four of these applications.

grandparent and grandparent applications.² The present reissue application now claims the additional compositions and the process, product and article of manufacture.

The substitute declaration of Stanley A. Marcus, Esq. indicates that at the time of filing the PCT application on which the parent application is based, the claims followed an omnibus format for subsequent submission to the various designated states.³

Although the PCT application contained claims to a "composition" they included both process, product, and article of manufacture limitations. Applicants attach the unamended original claims of the PCT application as Exhibit 3. PCT claim 1 claims a composition, but claim 2 contains temperature limitations for the application of the composition onto a flat glass substrate whereas claim 4 describes the glass substrate as moving and the application of the composition in a continuous manner. Claim 5 contains further temperature limitations for the application of the coating and claim 16 describes a rate of deposition. Claims 25 and 26 also contain process limitations for the deposition of the composition as at least a first layer at specific temperature and pressure conditions as well as deposition rates. Claim 26 contains additional temperature limitations and also describes applying the composition to a substrate by means of a continuous process.

² Exhibits 1 and 2 attached comprise the original claims of the great grandparent and grandparent applications respectively.

³ The PCT application designated Austria, Belgium, Switzerland, Liechtenstein, Germany, Denmark, Spain, France, the United Kingdom, Greece, Italy, Luxembourg, Monaco, the Netherlands, Brazil, Canada, Czechoslovakia, Hungary, Japan, the Republic of Korea, Norway, Poland, the Russian Federation and the United States.

The PCT claims also describe the composition in terms of article of manufacture limitations in claim 3, directed to the application of the composition to produce a glass article having no reflected color in daylight. Claims 17-24 contain product limitations in that they further describe the composition *inter alia* as adapted to provide an amorphous first layer (claim 17), a plurality of layers (claims 18, 19, 22, 23), and further give the composition of one of the layers (claims 19 and 20), and the refractive index of one of the layers (claim 21).

The amendment of the PCT claims in the United States prosecution structured the claims to conform to United States composition of matter claim practice. Nonetheless, the original PCT claims clearly illustrate that the applicants at that stage of the prosecution still considered their invention to include a process, product and an article of manufacture, even though couched in composition of matter terminology.

The Marcus declaration also states that as a result of error without deceptive intention, these claims were not amended to specifically include process, product and article of manufacture claims when the PCT application entered the national phase in the United States as the parent application. The more inclusive invention as set out in the written description of the parent application as well as the specifications of the great grandparent and grandparent applications was erroneously excluded from coverage in the claims of the parent application without deceptive intent but which the reissue application claims now cover.

Accordingly, applicants request that the Examiner withdraw the rejection of claims 28-55 in view of the substitute reissue declaration of applicants and the

substitute declaration of Stanley A. Marcus, Esq. that show the errors occurred without deceptive intent.

The Restriction and Alleged Recapture
for Failure to File a Divisional Application

The Examiner also rejects claims 28-55 under 35 U.S.C. § 251 on grounds that the reissue "may not 'recapture' subject matter withheld by restriction in the original application. . . [and that failure] to timely file a divisional application is not considered an 'error' subject to correction by reissue." March 3, 1997 Office Action, p.3, first paragraph. Applicants traverse the rejection and request further consideration and reexamination.

The Examiner specifically states that the reissue claims should only cover coating compositions based on the limitations applied to the patented claims. The Examiner notes in this regard that even though the parent application, (the United States national stage of the PCT application) did not contain a restriction requirement, the great grandparent and grandparent applications had restrictions applied to claims drawn to the coating composition, process of coating and article of manufacture. The Examiner further takes the position that applicants ultimately acquiesced to the restriction requirement in the great grandparent and grandparent applications. March 3, 1997 Office Action, p. 3, first paragraph.

The Examiner cites *In re Rowand*, 526 F.2d 558, 187 U.S.P.Q. 487 (C.C.P.A. 1975) in support of his position that the reissue applicants "may not 'recapture' subject matter withheld by restriction in the original application. . . ." March 3, 1997 Office

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Action, p. 3, first paragraph. Applicants' attorneys have reviewed the *Rowand* decision, however, take exception to the Examiner's position in that the *Rowand* decision did not involve a reissue application in which the parent application was subject to a restriction requirement, and further, the decision does not even deal with the "recapture" doctrine. *Rowand* only adapts the Supreme Court ruling of *U.S. Industrial Chemicals Co. v. Carbide Corp.*, 315 U.S. 668, 676, 53 U.S.P.Q. 6, 10 (1942) that "it must appear from the face of the instrument that what is covered by the reissue was intended to have been covered and secured by the original." The applicants in *Rowand* originally claimed a TeflonTM tubing having electrically conductive properties. In a subsequent interference, the Patent Office awarded priority of these claims to a third party. *Rowand* then filed a reissue application with claims to a method for manufacturing the article. The court found that the written description of the original application only contained a brief reference to the method of manufacturing the article and concluded, based on the decision in *U.S. Industrial Chemicals*, that the applicants did not intend to secure protection for the method of manufacturing the tubing in their parent application.

The present application does not involve "recapture" but only an error without deceptive intent that occurred when the PCT application entered into the U.S. National phase, when the applicants did not reformat the omnibus PCT claims when filed in the United States to conform to the great grandparent and grandparent applications that covered not only the composition but also the product, process and article of manufacture claimed in the present reissue application.

In order to demonstrate why the "recapture" doctrine does not apply to the re-issue application applicants' attorneys will show how the restriction requirement arose, why it did not conform to the statutory requirements of 35 U.S.C. § 121 requiring its application only to "independent and distinct inventions," filing the PCT application could not amount to a response to the restriction, and filing the PCT application in the United States with the abandonment of the great grandparent and grandparent applications made the restriction a nullity.

A review of the great grandparent and grandparent file histories show that on September 29, 1992 and September 28, 1992, respectively, the Examiner issued office actions memorializing an earlier telephone conversation with Stanley A. Marcus, restricting the applications to one of two groups of claims in each application.⁴

In the great grandparent application the Examiner characterized the two groups of inventions, i.e., coating and article of manufacture as mutually exclusive species in intermediate-final product relationship. The Examiner then concluded that this made the inventions "distinct" since the intermediate product had utility to make a product other than the claimed final product. The Examiner also based his conclusion of product distinctness by finding the intermediate product had utility as a window.

⁴ In the great grandparent application, the Examiner restricted the claims to group I claims 1-19 drawn to a coating composition and group II, claims 20-50 drawn to an article of manufacture whereas in the grandparent application the Examiner restricted the claims to group I, claims 1-27 drawn to a method of depositing a film and group II, claims 28-51, drawn to an article of manufacture.

In the grandparent application, the Examiner found that the method of the first group related to the article of manufacture of the second group as process of making and product made, and then concluded that this showed distinctness since the process had utility in making other and materially different products. The Examiner also stated that a skilled artisan could employ sputtering, a materially different process to manufacture the product.

The Examiner acknowledged a telephone conversation with Stanley A. Marcus, Esq. on August 25, 1992 in the great grandparent application in which Mr. Marcus provisionally elected the claims of Group II, claims 20-50 with traverse and similarly on August 25, 1992 in the grandparent application, Mr. Marcus provisionally elected the invention of claims 1-27 with traverse.

Significantly, the Examiner, in both the great grandparent and grandparent rejections, failed to demonstrate how the claims in both groups included "independent" inventions.⁵

The Examiner's failure in any way to indicate that the inventions in the great grandparent application are "independent" falls short of the statutory fiat requiring evaluation of the claims in both respects, i.e., as "independent" and "distinct" inventions. The Examiner also failed to demonstrate this in the grandparent application.

⁵ 35 U.S.C. § 121 allows for a restriction where the application claims "two or more independent and distinct inventions...." Here, the Examiner only found distinct inventions and ignored the statutory requirement to determine if the applications also claimed "independent" inventions.

Employing the Patent and Trademark Office test of whether or not inventions are independent, an analysis of the inventions has to be made to determine whether or not they are connected in their "operation or effect," "or capable of use together" and if they are, they cannot be considered independent. See MPEP §§ 808.01 and 806.04.⁶ That the inventions are connected in their operation or effect or capable of use together will be apparent from examining the classes of invention in both applications.

The inventions of claims 1-19 in the great grandparent application, drawn to a coating, find utility in manufacturing the article of manufacture of claims 20-50 and vice versa. In the grandparent application, the inventions of claims 1-27, drawn to a method of depositing a film, finds utility in manufacturing the article of manufacture of claims 28-51 and vice versa. Thus, the Examiner did not, and in fact, could not establish that the inventions in either the great grandparent or the grandparent application were "independent" because they were connected in their operation or effect or capable of use together, i.e., applicants could not divide them out as independent inventions for filing in separate applications in view of the Patent & Trademark Office tests in MPEP § 808.01 and 806.04. The restriction requirement pursuant to 35 U.S.C. § 121 in the great grandparent and grandparent application failed to follow this statutory requirement, and indeed, could not.

⁶ MPEP § 808.01 states "the inventions claimed are independent, i.e., where they are not connected in design, operation or effect...." MPEP § 806.04 states that inventions are not independent where they are "capable of use together."

Accordingly, the subsequent filing of the PCT application with additional disclosure material and claims to the composition, and the subsequent filing of the U.S. parent application as the national stage of the PCT application could not amount to acquiescence by the applicants to the restriction requirement because the restriction requirement was incomplete, which the Examiner could not correct since the inventions were connected in their operation or effect or capable of use together.

Secondly, filing the PCT application did not constitute a response to the restriction requirement or any other rejection in the great grandparent or grandparent applications. The Examiner issued specific notices of abandonment in both in May of 1993, five months after applicants filed the PCT application on 21 December 1992. The Patent Office had therefore closed prosecution on both the great grandparent and grandparent applications and with it, the various issues raised by the Examiner. The prosecution in both did not carry over to the PCT application which conformed to the laws and rules and regulations of a foreign convention that does not allow for the incorporation of the formal rejections of the great grandparent and grandparent United States applications into the PCT application.

Filing the parent application as the United States National phase of the PCT application did not resurrect any of the rejections in the great grandparent and grandparent applications. Those rejections died with the notices of abandonment in each, and the applicants' continuing prosecution of the invention in the PCT application did not interject the United States rejections into the PCT prosecution and for that matter, the parent application.

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The Patent Office has in fact taken the position that restrictions in parent applications do not carry over to subsequently filed continuation-in-part [CIP] applications, but only in continuation applications in file wrapper continuation cases under 37 C.F.R. § 1.62. MPEP § 819, par. 3, p. 800-47, Rev. 2, July 1996.

Although directed to 37 C.F.R. § 1.62 CIP applications, these sections of the MPEP, when applied by analogy to 35 U.S.C. § 111 CIP as well as PCT CIP applications, would lead to the same result because they do not differ substantively from Rule 62 applications but only in matters of form. MPEP § 819 therefore would compel the same conclusion, namely the restrictions in the great grandparent and the grandparent applicaitons did not carry over to the parent application, because of the latter's CIP status.

Additionally, the Examiner in the parent application did not consider the filing of that application as a response to any of the rejections in the great grandparent and grandparent application, but treated the parent application as a new United States application, and did not refuse to acknowledge priority of the great grandparent or grandparent applications in the U.S. prosecution. Lastly, when the Examiner entered the restriction in the great grandparent and grandparent applications, applicants' attorney made an oral traverse of the restriction requirement which the Examiner recorded. The Examiner did not have the opportunity to, and in fact did not make the restriction final but rather, issued a notice of abandonment in both applications on the ground of applicants' failure to respond in writing to the rejections in both.

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In any event, the Examiner not making the restriction requirement final, and the applicants' subsequent and outstanding oral traverse of the restriction requirement clearly shows that the applicants did not acquiesce to the restriction. *Cf. Paperless Accounting v. Bay Area Rapid Transit System*, 804 F.2d 659 231 U.S.P.Q. 649 (Fed Cir. 1986).⁷ The Examiner in the present reissue application therefore should not restrict applicants to the composition claims but rather, look at the original intent of the applicants as evidenced not only by the great grandparent and grandparent applications, but also the parent application as to what the applicants considered as their invention.

The following review of the great grandparent, grandparent and parent applications will make it clear that the applicants intended to cover and secure in those patents, the same invention they set out in the reissue, i.e., the composition, the process, product, and the article of manufacture. *U.S. Industrial Chemicals Co. supra*.

The great grandparent application in claims 1-19 claimed a coating composition and in claims 20-50, an article of manufacture. The applicants also filed grandparent application claims 1-27 drawn to the method of forming a coating and claims 28-50 directed to an article of manufacture.

The great grandparent application in this regard claimed in claim 1, a composition for coating a substrate that comprised at least one metal-oxide precursor

⁷ The Federal Circuit held that the non-final rejections in a parent application did not carry over to a continuation-in-part (CIP) and the subsequent filing of the CIP was not an admission of the correctness of the rejection in the parent or acquiescence to the rejection.

and one deposition-rate-enhancing material. Claims 2-4 claimed a transparent substrate such as glass whereas claim 5 included a silicon-oxide precursor in the composition, and claims 6 and 7 described the metal-oxide precursor as a tin-oxide precursor. Claims 8-19 describe the various deposition-rate-enhancing substances, and claims 20-50 describe various articles of manufacture produced with the claimed composition including the composition applied as at least one layer or a plurality of layers.

The grandparent application in claim 1, claimed a method for depositing a film onto a substrate with at least one deposition-rate-enhancing substance. Claims 2-5 describe the substrate as brittle, transparent and specifically a glass whereas claim 6 describes the layer as comprising metal and silicon oxides. Claims 7-10 describe the method in terms of metals comprising tin and non-metals such as silicon, boron, and phosphorous or the oxides thereof whereas claims 11-13 describe the method in terms of depositing one or more layers of the composition. Claims 14-21 define the deposition-rate-enhancing substances, whereas claims 22-27 describe the method as applied to forming a plurality of layers having a separate refractive index and the various materials employed in forming the layers. Claims 28-51 claim various articles of manufacture employing the method.

The present application, based on the disclosure in United States Patent No. 5,401,305 which issued from the parent application also describes in column 6, lines 24 *et seq.* "the article of the present invention is prepared by a process using accelerants whereby the process provides a commercially acceptable continuous CVD deposition of

oxide films on moving glass, especially on a modern floating glass line, where the batch processes of the prior art are entirely inapplicable." (Emphasis added). All of the examples, examples 1-7 describe various processes and the article of manufacture obtained by the processes, whereas claims 1-27 as amended all relate to compositions of matter.

The skilled artisan therefore would have no doubt that the applicants originally intended in the great grandparent and grandparent applications to claim the coating composition, a process utilizing the coating composition, a product, and an article of manufacture obtained by employing the process.

The applicants also carried this intent over into the parent application and now present claims directed to all these categories of invention in the reissue application as apparent from a review of the reissue claims.

Reissue claims 1-27 from the parent application relate to a gaseous composition adapted to deposit at least a first layer of tin oxide and silicon oxide onto glass at specified decomposition rates and includes a tin oxide precursor and a silicon oxide precursor of a specific formula. Claim 2 describes the deposition substrate as transparent flat glass, and sets temperature conditions for making the deposit. Claim 3 describes the glass article as having essentially no reflected color in daylight, whereas claim 4 describes the deposition on a continuously moving transparent flat glass substrate. Claim 5 sets a further temperature limitation on the gaseous composition, whereas claim 6 further defines the accelerants, and claim 7 the tin oxide precursor as having a specific organotin formula. Claims 8-10 list several tin oxide precursors,

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whereas claims 11-12 list silicon oxide precursors, and claims 13 and 14 specific accelerants. Claim 15 describes the composition adapted to deposit a layer of tin oxide and silicon oxide onto glass at specified deposition rates whereas claim 16 sets out the morphology of the deposit as an amorphous layer. Claims 17-21 describe the composition as adapted to deposit a plurality of layers, whereas claim 22 describes the composition as adapted to deposit tin oxide and silicon oxide onto glass having a refractive index which changes.

Claim 23 relates to the composition for depositing tin oxide and silicon oxide at specified deposition rates and sets out the formula for the silicon oxide precursor as an organosilicon compound or silicon hydroxide. The claim also includes a limit for the deposition rate of the silicon oxide and tin oxide. Claim 24 describes temperature conditions at which the gaseous composition is adapted to deposit the tin oxide and silicon oxide coating onto a continuously moving flat glass substrate whereas claim 25 specifies an organotin compound as a tin oxide precursor, and also provides specific formulas for the silicon oxide precursor and the accelerants. Claim 26 describes the composition in terms of specific tin oxide and silicon oxide precursors and claim 27 includes one specific tin oxide precursor, one specific silicon oxide precursor and several specific accelerants.

Newly added reissue claims 28-55 broadly relate to a gaseous composition comprising at least one precursor of a metal-oxide and an accelerant in combination with a precursor of a silicon-oxide. Claim 28 includes a specific formula for silicon oxide precursor, added by the applicants' November 27, 1996 Amendment. Claim 28 also

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lists organic phosphites, or organic borates in water as the accelerants. Claim 29 specifies various metal-oxide precursors. Claim 30 describes the composition as containing a precursor for silicon-oxide. Claim 31 also comprises a composition of matter claim that includes a metal -oxide precursor, the silicon-oxide precursor as set out in the November 27, 1996 Amendment and various specific accelerants. Claim 32 further defines the metal-oxide precursors. Claim 33 claims a film comprising one or more metal-oxides and an accelerant broadly, whereas claims 34-38 further claim specific metal-oxides (claim 34), specific accelerants (claims 35 and 36), inclusion in the film of a silicon-oxide (claim 37), and the morphology of the film, i.e., an amorphous film (claim 38). Claims 39-55 claim articles of manufacture based on the films of claims 33-38.⁸

The foregoing demonstrates that the restriction requirement did not carry over to the PCT or parent applications, and that the reissue application therefore does not "recapture" restricted subject matter from the great grandparent or grandparent applications, but only presents reissue claims that fall within the scope of what applicants identified as their invention, not only in the great grandparent and grandparent applications, but also the parent application as well as the reissue application. For these reasons, applicants respectfully request that the Examiner

⁸ Applicants' attorneys do not in any way intend to limit the claims of any of the great grandparent, grandparent, PCT, parent or Reissue applications by the summaries of claims of those applications as set forth herein.

withdraw the rejection on the grounds that the present reissue application attempts to "recapture" subject matter restricted in the original applications.

The Rejection Based on Alleged Expansion of Claim Scope

In the first instance, the Examiner rejects claims 28-55 under 35 U.S.C. § 251. He argues that "the original application contained claims to a coating composition wherein the organometallic portion contained an organotin compound and an organosilicon compound." After noting the rejection of these claims "as unsupported by the original specification" (i.e. failure to meet the requirements of 35 U.S.C. § 112) because of limited enablement of only certain species of organosilicon compound and applicants "limited the claims to compositions of the species recited in claim 1 of the patent" the Examiner then stated that "instant claims 33-55 [product and article of manufacture claims] expand the scope of the invention to include any organometallic compound including those specifically included in the original rejection." March 3, 1997 Office Action, p. 3, second paragraph.

Secondly, the Examiner concluded that lack of enablement of the coating composition in the "original" application carried over to the article of manufacture ("product") claims, i.e., the written description did not enable the article claims if it did not enable the composition claims.

Thirdly, the Examiner took the position that applicants attempted to recapture through reissue, claims of the same or broader scope than claims cancelled from the original application contrary to *Ball Corp v. United States*, 729 F.2d 1429, 221 U.S.P.Q.

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289, 295 (Fed. Cir. 1984); *In Re Willingham*, 282 F.2d 353, 127 U.S.P.Q. 211 (C.C.P.A. 1960); *In re Richman*, 409 F.2d 269, 161 U.S.P.Q. 359 (C.C.P.A. 1969); *In Re Wadlinger et al.*, 496 F.2d 1200, 181 U.S.P.Q. 826 (C.C.P.A. 1974). The Examiner also held that the reissue claims must include limitations made in the original application to overcome the rejection citing *Mentor v. Coloplast*, 998 F. 2d 992, 27 U.S.P.Q. 2d 1521, 1524 (Fed. Cir. 1993). Applicants traverse the rejections and request further consideration and reexamination.

Applicants' attorneys reviewed the file histories of the various applications to determine what the Examiner meant by the "original" application in order to address the "enablement" or 35 U.S.C. § 112 issue. This review shows that the Examiner rejected the claims in the great grandparent application under 35 U.S.C. § 112 since he was not able to understand the terminology "MBTC" and "TEOS." The Examiner, however, overlooked the definition of those terms on page 2, first full paragraph of the written description which define these compounds as butyltintrichloride and tetraethoxysilane respectively. The written description therefore supported or enabled the terminology MBTC and TEOS. The Examiner also took the position that certain claims lacked clarity as to whether the claimed components fell within a layer of the film or separate layers rendering the claims indefinite. The Examiner therefore made no supportable 35 U.S.C. § 112 rejection based on the doctrine of insufficiency of disclosure of "organometallic" or "organosilicon" compounds; he only rejected the species MBTC and TEOS.

Also, the Examiner made no rejections under 35 U.S.C. § 112 for insufficiency of disclosure of "organosilicon" or "organometallic" compounds in the grandparent application.

The Examiner's position that the rejection of claims as unsupported by the "original" specification as to "organometallic" compounds, and with only the enablement of certain species of "organosilicon" compounds therefore referred to the parent application.

As to the first point, the position that the Examiner takes in the present rejection that "the original application contained claims to a coating composition wherein the organometallic portion contained an organotin compound and an organosilicon compound" incorrectly characterizes the claims of the parent application. Those claims never included a compound identified as an "organometallic" compound but rather precursors for tin oxide. An amendment to the claims in the parent application also defined the precursor for the silicon-oxide not only as an organosilicon but also as silicon hydroxide, an "inorganic" silicon compound.

The Examiner in the parent application only required further elaboration of the precursor silicon-oxide compounds which the applicants effected by way of the October 25, 1994 Amendment. The Examiner in the parent application never rejected the claims for lack of enablement of "an organometallic" component in the claims and further never required elaboration of the precursors for the one metallic compound in the claim, tin-oxide. The applicants, nonetheless added claim 27 (now claim 25 in the

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issued patent) by the October 24, 1994 Amendment in the parent application to set out various organotin compounds comprising tin-oxide precursors.

The Examiner in the present application apparently confuses the rejection of the silicon-oxide precursors in the parent application as a rejection of the tin-oxide precursors by referring to both oxide precursors as "organometallic" compounds. Note in this regard, however, that silicon is not a metal whereas tin is. Accordingly, any rejection in the parent application directed at precursors of silicon-oxide would not carry over to tin-oxide precursors.

As a result, the present Examiner's position that "instant claims 33-55 [article of manufacture claims] expand the scope of the invention to include any organometallic compound including those specifically included in the original rejection" does not accurately characterize the prosecution in the parent application, nor does it properly characterize present claims 33-55.

Again, the Examiner in the parent application never "included in the original rejection" organometallic compounds at the time the Examiner made the September 23, 1994 rejection in the parent application. The Examiner only rejected certain claims that did not specify silicon oxide precursors in the same way as original claim 11. Subsequent Amendment on October 25, 1994 responding to that rejection inserted the silicon oxide precursors and added a claim with organometallic tin compounds, but this addition of tin compounds did not constitute a response to the September 23, 1994 rejection.

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The present Examiner therefore mischaracterizes the rejection in the parent application as directed to any "organometallic" compounds employed for the manufacture of metal oxide compounds. The Examiner in the parent application, again, never rejected the claims in the parent application because of the alleged breadth or alleged lack of support for "organometallic" compounds. The Examiner in the parent application could not have done this since the claims to the parent application encompassed tin oxide coatings whereas the claims of the present reissue application include *inter alia* films of one or more metal oxides and an accelerant. More specifically, and again, the Examiner in the parent application only rejected the claims for failure to specify the precursors for the oxides of silicon (a non-metal) and did not in any way address the precursors for the tin oxide in his 35 U.S.C. § 112 rejection.

Importantly, claims 33-55 rejected by the Examiner in the present application, do not even include an "organometallic" compound but only films of one or more metal oxides and an accelerant. The breadth of the claims would cover films of one or more metal oxides produced from organometallic compounds as precursors for the metal oxides, but the claims, as product claims, do not specify these compounds or for that matter the process employed for making the metal oxide films, nor do they have to.

As to the second point, the specification of the "original" application clearly shows enablement of the coating composition and therefore the article of manufacture made from the composition. Pages 5-8 list 16 classes of metal compounds, seven classes of accelerants and multiple species falling within these classes for use in the composition. Clearly, the skilled artisan would know the coating compositions included

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within applicants' invention to enable them to produce an article of manufacture with these enumerated compounds. Lastly, page 5 informs the skilled artisan that he or she can deposit the coatings by a CVD process at rates greater than 350Å/sec. at atmospheric pressure and temperatures lower than 700°C. Applicants respectfully submit that the foregoing would enable, not only the composition, but also the article of manufacture of the invention claimed in the present reissue application

The Examiner erroneously takes the position as to the third point that the reissue application attempts to "recapture" subject matter originally rejected in the parent application by including metal oxides and precursors of metal oxides in addition to the tin oxide and tin oxide precursors in the parent application.

A review of the file history of the parent application will show that the subject matter of the claims of the present reissue application never came under rejection in the parent, and none of the subject matter in the claims of the reissue application was ever cancelled from the claims of the parent application, nor from the great grandparent or grandparent applications.

Specifically, the parent application, did not contain claims to metal oxides and precursors of metal oxides, but only tin oxide and tin oxide precursors. Applicants never gave up the broad category of metal oxides and precursors of metal oxides in the parent application in a response to a rejection in the parent. The parent simply did not contain claims employing the language "metal oxides" or "precursors of metal oxides."

Similarly, applicants never amended the great grandparent or the grandparent application to exclude claims that related to "metal oxides" and "precursors of metal

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oxides." The presentation of claims that include these materials in the reissue application therefore does not recapture claim terminology previously withdrawn in order to obtain allowance of an application, the principle underpinning the recapture doctrine. Accordingly, the decision in *Ball Corp.* has no application to the present facts.

The Examiner, however, cites the *Mentor* decision to support the proposition that reissue claims must include limitations made in the original application to overcome the rejection therein. Applicants' attorneys respectfully submit that *Mentor* does not apply. The applicants in *Mentor* obtained reissue claims broader than the original claims regarding subject matter deliberately surrendered during prosecution. The court concluded that the applicants attempted to reclaim what they earlier gave up and also noted that they added limitations to the reissue claims that did not narrow the claims in any material respect as compared to their broadening.

In the present application, however, the applicants are not attempting to broaden what they earlier narrowed in order to obtain an allowance. The present reissue application claims metal oxide and metal oxide precursors whereas the parent application claimed tin oxide and tin oxide precursors, and the applicants never amended the parent application to specify the tin oxide in lieu of the metal oxides. The earlier part of this response shows how and when this occurred.

Similarly, applicants did not amend the great grandparent and grandparent applications to exclude metal oxides or metal oxide precursors in order to obtain allowance.

Claims 33-35 therefore do not broaden subject matter rejected in the parent application or for that matter in the great grandparent and grandparent applications.

The Examiner in the present application therefore cannot invoke the so-called "recapture rule" as set out in *Ball* and the prohibition against broadening in *Mentor* and assert that it bars the patentee from acquiring, through reissue, claims of the same or broader scope than the original application. This aspect of the recapture or broadening rule only pertains to instances where applicants amended the parent application to obtain issuance, not as in the present case, where the parent application, through error without deceptive intention failed to include subject matter disclosed and described as part of the applicants' invention. The great grandparent and grandparent applications, as well as the written description of the parent application described this as part of applicant's invention. Furthermore, the applicants did not amend the claims of the great grandparent, grandparent or parent application to exclude this subject matter in order to obtain allowance.

The Rejection of Claims 28-32 as Allegedly Broader
Than Claims Originally Cancelled From The Parent Application

The Examiner acknowledges the amendments to claims 28-32 limit the silicon oxide precursor to those recited in the claims of the parent application. The Examiner, however, takes the position that applicants have broadened claims 28-32 compared to claims originally cancelled from the specification since they claim metal oxide precursors not limited to tin oxide as in the case of the patent claims. The Examiner

then takes the position that regardless of the scope of inventions of the original disclosure, applicants can only claim that which they originally intended to claim. The Examiner then states that the applicants can only present objective evidence set forth in the prosecution history of the patented claims to determine this intent, citing *Ball Corp.* The Examiner goes on to note that the original application lacked disclosure teaching the skilled artisan reaction conditions necessary to use any metal oxide precursor other than a tin oxide precursor. The Examiner also states that the amendment of the claims to place the application in condition for allowance, the limitations of the original abstract and claims as filed, and the statement in the declaration of the parent application that the applicants "reviewed and understood" the subject matter of the invention, indicate what the applicants intended as their invention. March 3, 1997 Office Action, page 4. Applicants traverse the rejection and request further examination and reconsideration.

Applicants emphasize that the amendments to claims 28 and 31 specify the silicon oxide precursor employed in combination with the metal oxide precursor using the same claim language for the silicon oxide precursor as in the parent application. Thus, the reissue claims contain parameters broader in certain respects than the parent application by covering metal oxide precursors and not just tin oxide precursors. The reissue claims, however, are of the same scope in regard to the silicon oxide precursors that the applicants introduced into the parent application in order to obtain allowance. Applicants have not attempted to reclaim what was surrendered earlier regarding the silicon oxide precursors and accordingly, the recapture rule has no application in this

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case. *See, Mentor Corp. supra.* Applicants have not attempted to reclaim what they earlier gave up. The silicon oxide precursors stand on the same footing in the present reissue application as they did in the parent application.

The parent application, however, never claimed the metal oxide precursors, and introduction of the metal oxide precursor claims at this point does not attempt to recapture anything that the applicants gave up in the claims of the parent application. Also, the applicants never amended the great grandparent or the grandparent application to substitute tin oxide or tin oxide precursors in lieu of metal oxides or metal oxide precursors.

As to the position the Examiner takes that objective evidence set forth in the prosecution history of the patented claims will show what the applicants intended to have claimed as their invention, applicants again direct the Examiner's attention to the great grandparent and grandparent specifications and especially the claims, as well as the written description in the parent application, as set forth previously in this response, to show what the applicants set out as their invention, i.e., the composition including both the metal oxide and precursor and tin oxide and precursor, optionally with a silicon oxide and precursor, and the various processes, products and articles of manufacture inventions set out in all of these applications.

The Examiner also states that the "original application" lacks a disclosure for teaching one of ordinary skill in the art reaction conditions to use any metal oxide precursor. The Examiner, however, has not cited any evidence establishing this lack of knowledge on the part of the skilled artisan and accordingly, this aspect of the rejection

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cannot stand. In addressing this issue, the Court of Customs and Patent Appeals in *In Re Marzocchi*, 439 Fed.2d, 220, 224, 169 U.S.P.Q. 367, 369-70 (C.C.P.A. 1971), ruled:

It is incumbent upon the Patent Office, whenever a rejection on this basis [insufficiency of disclosure] is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. (Emphasis added).

Applicants submit that the skilled artisan would know, based on the teachings of the present written description, how to obtain and react the various metal oxide precursors. Again, the parent application (now U.S. Patent No. 5,401,305) describes in col. 4, lines 20 *et seq.* various metal oxide precursors as volatile compounds of tin, germanium and the like and specifically sets out in col. 4, lines 46 *et seq.* specific precursors for the deposition of metal oxides including aluminum alkyls, alkoxides and the like, *i.e.*, about 20 specific compounds suitable in this regard. These compounds include various species of volatile metal oxide precursors of aluminum, cadmium, germanium, indium, titanium, zinc, zirconium, chromium, nickel, vanadium, and the like. The patent also gives the precursors for the tin compound in col. 4, lines 54-63. The parent application also describes a process for applying the composition to a substrate at column 5, lines 49-57, column 5, lines 25-31, and column 9, lines 36-46. Applicants submit, with these teachings, the skilled artisan would be able to make and use applicants' invention.

The Examiner attempts to rely on the abstract to limit the invention, however, the Examiner may not do so since "[t]he abstract shall not be used for interpreting the

scope of the claims." 37 C.F.R. § 1.72(b). Granted the claims as filed only in the parent application did not contain claims of the same scope as the reissue application which the Examiner notes. However, as pointed out before, the written description of the parent application does this as well as the claims and written description of the great grandparent and grandparent application. All of this clearly shows that the applicants intended to claim the subject matter of the present reissue application.

The Examiner also states that the applicants "reviewed and understood" the invention of the parent application, but as noted earlier in this response, their review and understanding involved an error without deceptive intention. The intent of the applicants to claim the invention, again as set out in this response, follows from a review of the clear teachings of the great grandparent, grandparent, and parent applications, all of which set out those elements of the disclosure that the applicants specifically describe as "their invention." The skilled artisan would have no doubt that this "invention" included the subject matter of the present reissue claims.

**The Examiner Has Failed to Show
that Filing the Parent Application Involved Deceptive Intent**

The reissue statute, 35 U.S.C. § 251, directs the Commissioner of Patents to reissue a defective patent if it can be shown that the patent, through error without any deceptive intention is deemed wholly or partly inoperative or invalid by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he or she had a right to claim in the patent.

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